



Exposure Scenarios and ESCom

ESCom version 2.0



Content

- ENES & CSR/ES Roadmap
- ESCOM
 - What is the ESCom Package?
 - What is the ESCom Project?
 - ESCom Package Version 2: status and features
 - ESCom benefits
 - ESCom vision and implementation
- Standardizing Information for End Uses of Mixtures



ENES – What is that?

- Joint platform by ECHA, CEFIC, DUCC, Concawe.
- Semi-annual meetings of invited experts.
- Brings together experts from
 - National authorities
 - ECHA
 - Company representatives
 - Sector organisations
 - Consultants

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What is ENES about? - REACH Exposure Scenarios

- **No Safe Use – No Market.** REACH 31.7: Conditions of ‚Safe Use‘ have to be defined for dangerous substances.
- Conditions of safe use are documented as ‚Exposure Scenarios‘ (ES) in CSR. ES are communicated to Downstream Users in the extended Safety Data Sheet.
- REACH 37.5 – Downstream Users have to conform to Exposure Scenarios and therefore need to process the information contained in the ESs.
- Joint conclusion of registrants, downstream users, and authorities:
- The concept of Exposure Scenarios
 - ... brings risk / exposure based evaluations.
 - ... needs to be further developed into a practically usefuls.

October 5, 2015

Title and author of presentation

Slide 4

ENES: Expert Network for Exposure Scenarios

- Joint platform by ECHA, CEFIC, DUCC, Concawe
- Objective = enhance the safe use of chemicals through the supply chain by:
 - sharing experience of the lessons learnt in the building and use of exposure scenarios;
 - sharing experience on practical solutions to overcome any obstacles in their development and implementation;
 - improving the understanding on what features make an effective exposure scenario; and
 - enabling chemical product suppliers to move towards adopting suitable approaches that deliver consistent and useful exposure scenarios to downstream users in an efficient way.
- <http://echa.europa.eu/about-us/exchange-network-on-exposure-scenarios>

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Title and author of presentation

Slide 5

What does ENES do?

-
- Brings together experts from
 - National authorities
 - ECHA
 - Company representatives
 - Sector organisations
 - Consultants
 - Semi-annual meetings of invited experts.
 - Oversee execution of CSR/ES Roadmap
 - Develop best-practice for Exposure Scenarios
 - Develop consensus on dealing with Exposure Scenarios

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CSR / ES Roadmap - Background

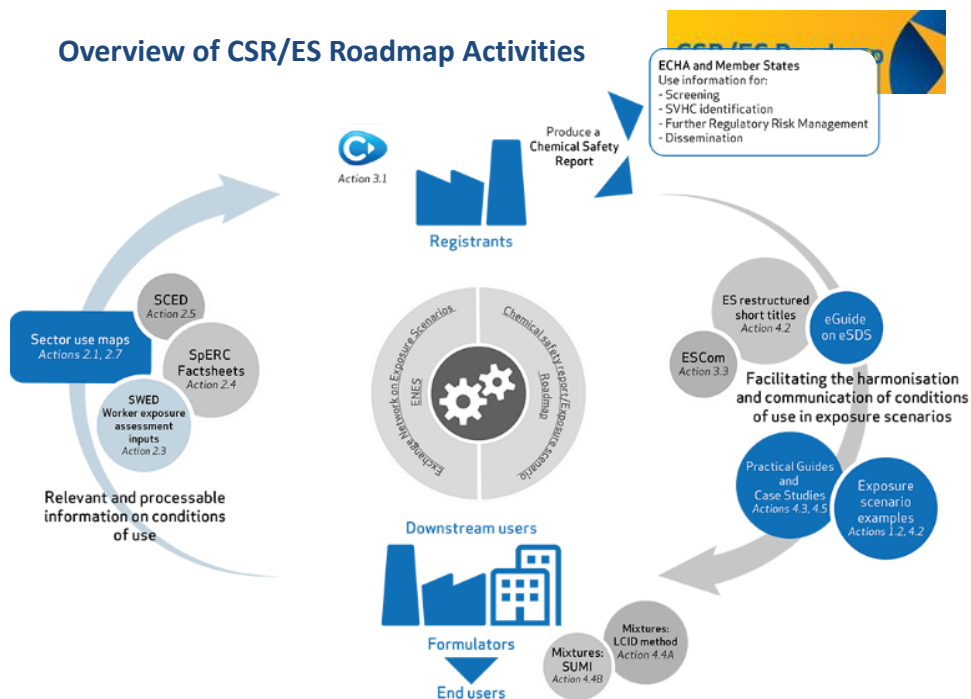
- Point of departure:
 - Safe use of chemicals - Exposure Scenarios (ES) provide information on control of exposure of workers, consumers, environment.
 - Manufacturers/Importers develop ES as part of the chemical safety report (CSR) and communicate them in their supply chains.
 - The concepts of CSR and ES and communication in the supply chain is novel and largely untested.
 - Outcome of 2010 registrations did not meet expectations
- Objective:
 - Improve content and use of ES.
- Strategy:
 - CSR/ES Roadmap as the 2013-2018
 - Commitment from Industry organisations and Member States

<http://echa.europa.eu/regulations/reach/registration/information-requirements/chemical-safety-report/csr-es-roadmap>

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Title and author of presentation

Slide 7



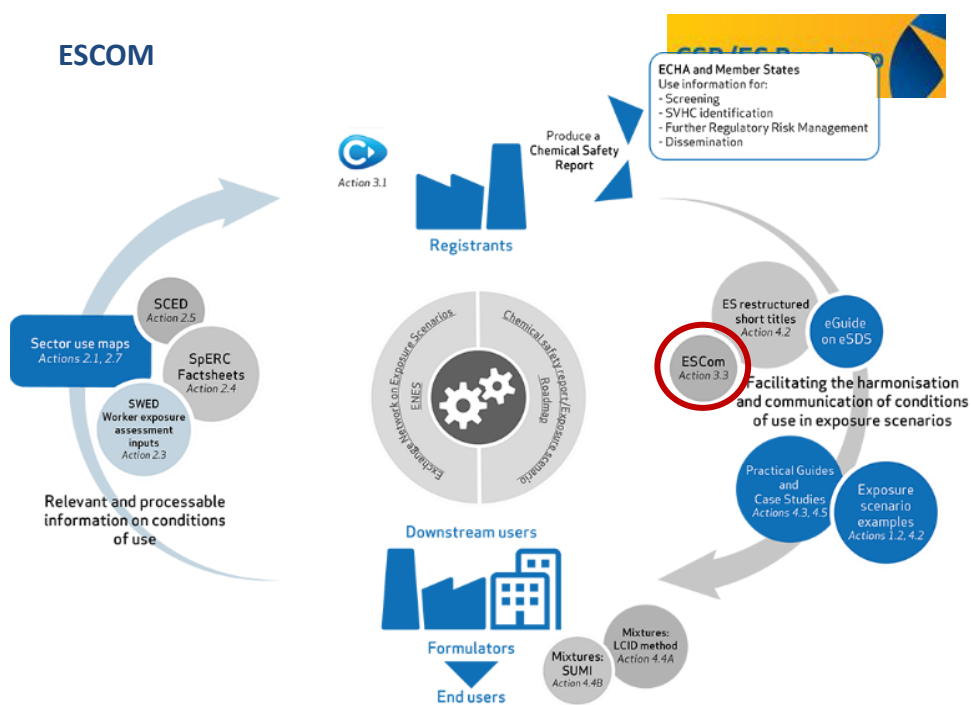
CSR / ES Roadmap – Four Action Areas

1. Increase common understanding among stakeholders
 - 3 actions
2. Information inputs for the chemical safety assessment
 - 7 actions
3. IT tools and standardisation
 - 3 actions (ESCOM package)
4. Support to formulators
 - 6 actions

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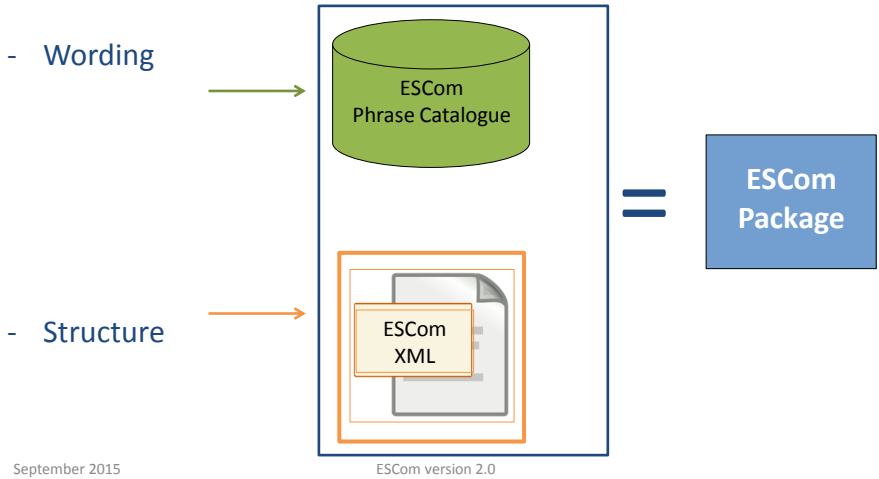
Slide 9





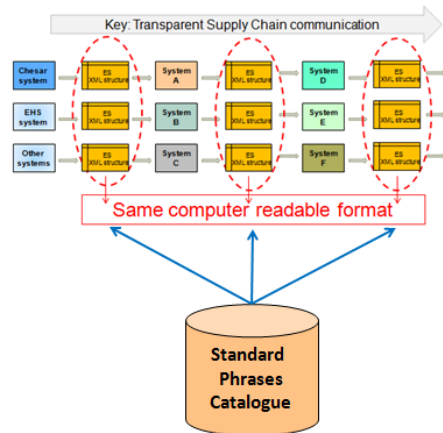
ES Communication: need for standardization

To support the exchange of information via the ESs for communication along the supply chain, standardization is required at different levels:



What is the ECom Package?

- ECom XML standard:
 - An IT communication standard to harmonize ES data exchange between computer systems in the supply chain
 - Developed by IT providers in consultation with industry
- ECom Phrase Catalogue:
 - A catalogue with standard phrases for ESs for communication
 - Developed by industry sectors, associations and companies





ESCom Version 2.0: features (1)

The mapping of catalogue and XML

To ensure that catalogue and XML can work together effectively and efficiently,

the meaning and intent of each phrase in the catalogue as well as where it fits in the structure of the XML needs to be clear. This clear link is referred to as “**mapping**”.

In the 2.0 package release, the mapping is included for all phrases that are active and can be used in one of the four sections of the ES generated for a substance. The mapping is included in the catalogue via additional metadata in the masterfile.

The XML is composed of different **Sections and Sub-Sections** that correspond to the sections and sub-sections that can be found in the ES, such as Sewage Treatment Plant (STP), Technical and Organisational Measures (TOM), ... and each section and sub-section includes one or more **attributes**. Attributes and attributes' data types have been changed to be consistent with rules defined for phrases and with the content of the ES

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ESCom Version 2.0: features (2)

ESCom XML

- Alignment with **ES template** published by ECHA: sections and attributes included for each template element have been modified
- Support for **new communication requirements**: need to include additional info, e.g. attributes for ES structured short titles (SST)

ESCom catalogue

- High quality phrases (as result of the stringent phrase review proces)
- Contains both general and sector standard phrases
- Supports newly developed tools/concepts, e.g. ES structured short titles (SST), use description (ECHA guidance R12), most commonly used risk assessment tools (exposure assessment phrases: e.g. ECETOC TRA, Stoffenmanager, MEASE, ART, etc.)
- Search functionality through metadata structure
- Updated twice a year (2 versions per year will be published)
- Aligned with the EuPhraC activities for SDS standard phrases

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ESCom supporting materials

- Updated guidance documents for both phrases and XML
- Attributes descriptions, definitions, and possible metadata combinations associated to the phrases
- On-line proposal tool for submitting new phrases:
<http://content.euphrac.eu/Default.aspx?Language=en>
- Query form on ESCom webpage to direct questions and feedback

All the above information is available on the ESCom webpage:
<http://www.cefic.org/Industry-support/Implementing-reach/escom/>

And news will be also published via Roadmap website:
<http://echa.europa.eu/csr-es-roadmap>

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ESCom benefits: improvement of communication

- Quality
 - Harmonization of information
 - Completeness of information
 - Tailored information
 - Consistency and clarity of exchanged data
 - Avoidance of human errors
- Automation
 - Eliminate manual indexing/data extraction
 - Facilitate processing of voluminous information
 - Visibility and tracking data exchange
- Logistics
 - Higher control via more centralized workprocess/flow in companies
 - Direct links to industry tools like use maps, SPERCs, SCEDs, SWEDs, etc.
 - Longer term: elimination of hard-copy (e)SDS's

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ESCom Vision 2016 - 2017

- Companies have implemented ESCom catalogue in their EHS systems
- A limited no of large companies and a few sectors have implemented the ESCom package (main objective: support formulators; ES mixtures generation)
- Companies and sectors experiment with different workflow/processes to process ES information (more centralized approach)
- First evaluations of ESCom package implementations
- Evaluation of ESCom package implementation by 'early adaptors' results in:
 - Quantifiable information on benefits of implementation
 - Implementation of improvements in ESCom XML
 - Alignment of ESCom catalogue with improved XML
 - Good and leverageable practices for more centralized workflow and processes

ESCom Sustainability

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ESCom Vision 2018 - >2022

2018-2019

- 2018 registrations (CSA-CSR) are done using ESCom standard phrases
- ES's for communication are generated using ESCom standard phrases
- Other large companies and sectors start implementing the ESCom package
- The value of ESCom is widely recognized and companies are prepared to financially support ESCom

2020- 2022

- Also SME's and other sectors start implementing the ESCom package
- Harmonized and compatible SDS XML and phrases catalogues are available

> 2022

- ESCom phrases and XML are used extensively in the supply chains
- Based on experiences with ESCom implementation, a limited no of large companies start implementation of the SDS XML and phrases package

ESCom Sustainability

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Turning vision into facts: 2016-2018


 CSR/ES Roadmap

- Continuation of ECom activities to build recognition of ECom in the chemical supply chain:
 - Companies are confident that ECom is not just a project, but a sustainable activity
 - Companies appreciate that ECom saves considerable time
 - Companies appreciate the quality of the ECom phrases
 - Companies have the ECom phrases available when they need them

- Requirements:
 - Continuation of MoU with all partners in chemical industry and IT
 - Further building of a professional organisation running the ECom project
 - Active promotion of ECom (presentations, workshops, webinars, etc; refer to back up slides)
 - Secure (human and financial) resources for ECom
 - Develop a business payment model to sustain ECom in the future

ECom Sustainability

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Further professionalization


 CSR/ES Roadmap

- ECom Steering Committee continuing the overall steering of the project and actively promoting ECom within the chemical industry

- External support for operational management, work planning, ECom catalogue maintenance, technical issues and solutions, collection of experiences with ECom implementation by 'early adapters', helpdesk

- Group of industry experts (practitioners) that continue doing the phrase reviews, development of new phrases and mapping to XML

ECom Sustainability

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III. ECom implementation

Companies using chemicals: start aligning their IT system to ECom 2.0 and align existing ES content to ECom standard

- How are we **managing ES creation and maintenance**? Do I have an expert/team in my company that deals with ES management?
- Is my **sector** following ECom activities and can act as mediator ? Did my sector develop a set of standard phrases?
- Do I rely on **IT system** for generation/storing of ES? If yes, check with IT providers how they are going to implement ECom
- What **actions** are **needed** to ensure that my ES in the future are following the ES standard (structure, content, process)
 - Are the ECom phrases available within my IT system for generation of ES's?
 - Are the ECom phrases the preferred phrases to be used in description of ES's in CSA/CSR and in the ES for communication?

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III. ECom implementation

IT Providers: support companies through implementation and discuss business needs

- As an IT provider, am I aware of the content of the package and do I plan to support EComXML generally and the 2.0 release specifically?
- If so, define the **release schedule** of the necessary features and contact customers and discuss with them implementation steps
- Discuss with companies the **business needs and strategy** for sharing ES data with their customers and, according to the complexity of the company organization, within the company
- Gather **feedback from customers** during implementation and contact XML Working Group in case there are suggestions for additional needs.

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III. ECom implementation

Sectors: support companies and help them to provide feedback to ECom WGs. Identify ECom overlaps with their activities.

- Promote package and its **integration with other activities** under CSR/ES Roadmap
- Start **gathering feedback** from members on the implementation steps and suggest to ECom WG where additional support and guidance is needed
- Make sure that **set of phrases** existing in the Catalogue can adequately support communication for the market sectors relevant for my sector

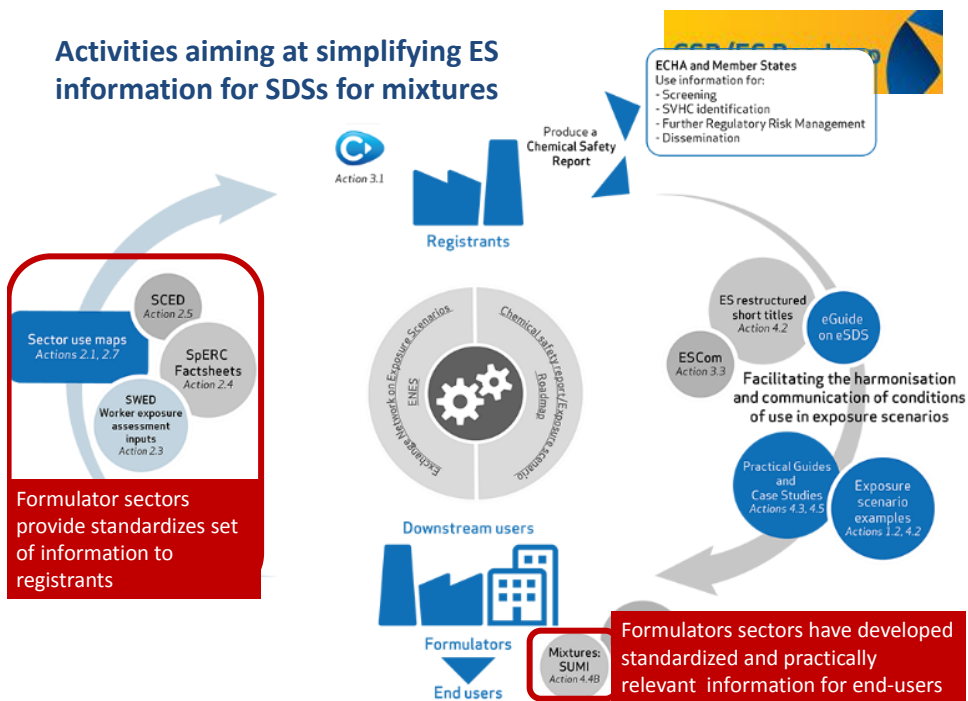
Tool owners: make sure that the package is compatible with tool content

- Make sure that **set of phrases** in the catalogue can cover communication needs related with the assessment tool
- Start to consider how to align its input/output with pick-lists included in the phrase catalogue

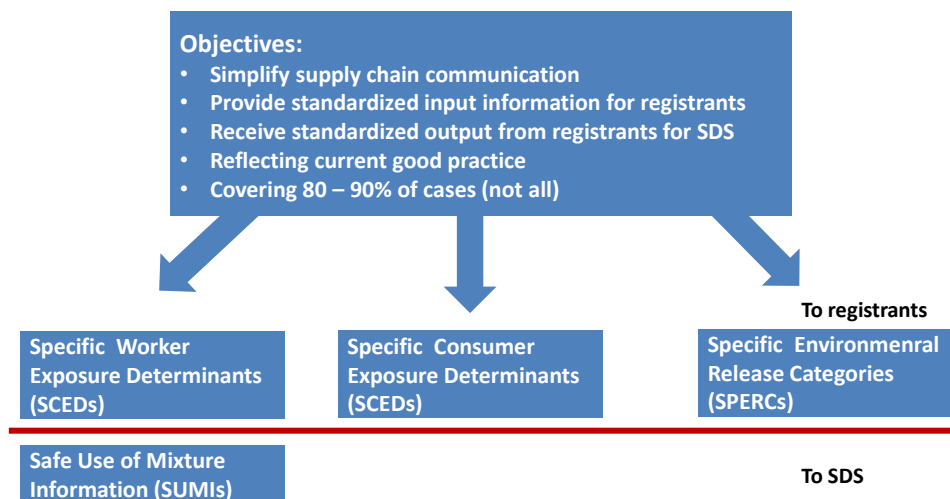
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Simplifying ES information for end uses of mixtures



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Sectors involved in simplifying ES information for SDSs for end uses of mixtures



Association and Products	SWEDs	SCEDs	SPERCs
ACEA: Coatings in automotive industry			Y
A.I.S.E.: Cleaners, detergents, maintenance products	Y	Y	Y
ATIEL: Lubricants	Y	Y	Y
Cosmetics Europe: Personal care products			Y
CEPE: Coatings, inks, paints, artists colours	Y		Y
ECPA: Plant protection products	Y		Y
EFCC: Construction chemicals	Y	Y	Y
ESIG: Fuels, solvents in all types of products	Y	Y	Y
ETRMA: Tyres and rubber products			Y
Eurometaux: Metals, metal products			Y
FEICA: Adhesives and Sealants	Y	Y	Y

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Back up slides

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Secure resources for ESCom (2016-2018)



Human resources:

- Staff support (administrative support, communications, operational support, etc.) => Cefic, DUCC
- Expert support in the phrase working group => chemical companies

Financial resources:

- External support for further professionalization of ESCom
- Estimated budget for 3 years: 150 – 200 kEuro (50 – 70 kEuro per year)
- Sources for funding:
 - Chemical industry organisations: Cefic, DUCC
 - Individual companies
 - IT Providers
 - ???

Next steps to acquire funding



- Cefic/DUCC to prepare proposals for financial/human resource support for the coming 3 years (will be done on a yearly basis); already in progress
- Contact chemical companies with an interest in and/or involved in ECom development: identify options for financial support
- Contact IT providers in IT providers group: identify options for financial support



Glossary

CSA	Chemical Safety Assessment
CSR	Chemical Safety Report
DU	Downstream User
ECHA	European Chemicals Agency
ES	Exposure Scenario
ID	Identification number
LCS	Life Cycle Stage
M/I	Manufacturer/Importer
MoU	Memorandum of Understanding
SCED	Specific Consumer Exposure Determinant
SPERC	Specific Environmental Release Category
SWED	Specific Worker Exposures Determinant
SST	Structured Short Title
UD	Use Descriptor